

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Saxler et al.

Group Art Unit: 2823

Serial No.: 10/617,843

Examiner: Fernando L. Toledo

Filed: July 11, 2003

Confirmation No.: 7985

For:

NITRIDE-BASED TRANSISTORS AND METHODS OF FABRICATION THEREOF

USING NON-ETCHED CONTACT RECESSES

Date: July 8, 2004

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

FIFTH INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Sir:

Attached is a list of documents on Form PTO-1449, together with a copy of any listed foreign patent document and/or non-patent literature. A copy of any listed U.S. patent and/or U.S. patent application publication is not provided herewith in accordance with the waiver by the U.S. Patent and Trademark Office of requirements under 37 C.F.R. § 1.98(a)(2)(i) for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC § 371 after June 30, 2003.

It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. § 1.56 and Section 609 of the MPEP. No fee is believed due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

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FORM PTO-1449 U.S. Department of Commerce

Patent and Trademark Office

Attorney Docket Number: 5308-248

Serial No.: 10/617,843

LIST OF DOCUMENTS CITED BY APPL (Use several sheets if necessary)

plicants:

Saxler et al.

Filing Date: July 11, 2003

Group: 2823

U. S. PATENT DOCUMENTS

JUL 1 2 2004

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1.	6,586,781 B2	7/1/03	Wu et al.	257	194	
	2.	6,548,333 B2	4/15/03	Smith	438	172	
	3.	6,515,316 B1	2/4/03	Wojtowicz	257	194	
	4.	6,448,648 B1	9/10/02	Boos	257	751	
	5.	6,429,467 B1	8/6/02	Ando	257	194	
	6.	6,046,464	4/4/00	Schetzina	257	96	
	7.	6,028,328	2/22/00	Riechert et al.	257	194	
	8.	5,172,197	12/15/92	Nguyen et al.	357	22	
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	10.	4,946,547	8/7/90	Palmour et al.	156	643	
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	13.	2003/0102482 A1	6/5/03	Saxler	257	85	
	14.	2003/0020092 A1	1/30/03	Parikh et al.	257	192	
	15.	2002/0167023 A1	11/14/02	Chavarkar et al.	257	194	
	16.	2001/0023964 A1	09/27/01	Wu et al.	257	368	
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	18.	WO 93/23877	11/25/93	PCT	HOIL	29/10	
	19.	10-050982	2/20/98	JP	HOIL	29/778	
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- 21. Breitschadel et al., "Minimization of Leakage Current of Recessed Gate AlGaN/GaN HEMTs by Optimizing the Dry-Etching Process", Journal of Electronic Materials, Volume 28, No. 12, 1999.
- 22. Burm et al., "Recessed Gate GaN MODFETS", Solid State Electronics, Volume 41, No. 2, pp. 247-250, 1997
- 23. Chen et al., "Reactive ion etching for gate recessing of AlGaN/GaN Field-effect transistors", J. Vac. Sci. Technol. B 17(6), Nov/Dec 1999

FORM PT		49 U.S. Department of Commerce Patent and Trademark Office	Attorney Docket Number: 5308-248	Serial No.: 10/617,843				
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	24.	Heikman et al., "Polarizator, Effects in & GaN/GaN and GaN/A1GaN/GaN heterostructures", Journal of Applied Physics, Vol. 93, No. 2004, 15, 2003, pp.10114-10118.						
	25.	Karmalkar et al., "Enhancement of Breakdown Voltage in AlGaN/GaN High Electron Mobility Transistors Using a Field Plate, IEEE Transactions on Electron Devices, Vol. 48, No. 8, August 2001						
	26.	Karmalkar et al., "Resurf A1GaN/GaN HEMT for High Voltage Power Switching", <i>IEEE Electron Device Letters</i> , Vol. 22, No. 8, August 2001, pp. 373-375.						
	27.	Kuzmik et al. "Annealing of Schottky contacts deposited on dry etched AlGaN/GaN," Semiconductor Science and Technology. Vol. 17, No. 11, November 2002.						
	28.	Neuburger et al. "Design of GaN-based Field Effect Transistor Structures based on Doping Screening of Polarization Fields," WA 1.5, 7th Wide-Bandgap III-Nitride Workshop, March 2002.						
	29.	Sriram et al. "RF Performance of A1GaN/GaN MODFET's on High Resistivity SiC Substrates," Presentation at Materials Research Society Fall Symposium, 1997.						
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